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EDITORIAL DEPARTMENT NOTE

The interrelation of cost, volume, and price provides the industrial accountant with a whole series of problems in developing costs for planning and pricing purposes. Recognizing the existence of this interrelationship he is constantly on the alert to develop and discover techniques which will help him provide for management the most useful cost figures for use in developing the plans and pricing policies which will yield the maximum net profit return. The first article in this issue of the *Bulletin* describes an interesting method of "variable unit analysis" which many members will find useful.

The author of this article, H. G. Peterson, Jr., is a native of Minnesota. Awarded the B.B.A. degree by the University of Minnesota in 1940, and the M.B.A. degree by Temple University in 1945, Mr. Peterson was employed for brief periods by Haskins and Sells and the Atlas Powder Co. He then spent several years with the RCA Victor Division of the Radio Corp. of America, serving in a staff capacity. He has recently joined the United States Steel Corp. of Delaware as a Financial Analyst.

The second article in this issue provides a description of cost accounting practice in one of the more important service industries—laundering. John Carruthers, the author of this article is Senior Partner of the firm of John Carruthers & Co., public accountants of Boston specializing in the laundry and allied industries. Mr. Carruthers has been connected with the laundry industry since 1921 when he joined the Winchester Laundries, Inc., of Boston as Office Manager. He entered public practice in 1922, specializing in the laundry industry. Mr. Carruthers is Editor of the *Carruthers Laundry Bulletin*. During 1942 and 1943, he served as Chief of Services, Boston Regional Office, O.P.A., in charge of administration of price control for all service industries in New England.

Our third article is in effect a continuation of the article on "Customers' Billing in an Electric Utility," published in the *Bulletin* for November 1, 1945. Mr. Elliott is Assistant Supervisor of the Customers' Accounts Department of The Detroit Edison Co. He received his accounting training at Wayne University and the Detroit Institute of Technology and is a member of the Detroit Chapter.

Article published in the *Bulletin* present many different viewpoints. In publishing them the Association is not sponsoring the view expressed, but is endeavoring to provide for its members material which will be helpful and stimulating. Constructive comments are welcomed and will be published in the Forum Section of the *Bulletin*.

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MARCH 1, 1946

THE COORDINATION OF COMPANY FINANCIAL PLANNING WITH EXTERNAL ECONOMIC CONDITIONS

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AS a general rule, a concern producing an article similar to that produced by several other concerns believes itself to be engaged in perfect competition with the others. Basically this doctrine is but a half-truth. True enough, all enterprises in the same industry are generally competitive to a certain degree, but they are not fully competitive since each obtains for itself a base market apart from that of its competitors, based upon product differentiation. Product differentiation exists when, in the minds of consumers, similar products are not satisfactory substitutes for each other, even though the products satisfy the same general desire.

Consider for the moment bar soaps for hands, face, and bath selling under the brand names of Ivory, Palmolive, Sweetheart, Woodbury, etc. These brands, representing similar products, satisfy like consumer wants and sell for about the same price. While from a strictly objective point of view each brand is a satisfactory substitute for every other brand, each brand has as a part of its total market a faithful following which will almost invariably make the same purchase. Among each brand's customers are less faithful customers attracted by advertising and/or lower prices. Each brand will try to expand to the greatest net profit position possible, if it believes that the revenue from the added sales will be in excess of the added cost, by luring away the least faithful customers of competing brands. But if competitors are on the alert, a counterattack will either limit or nullify gains made by the business attempting to expand, thus keeping their own faithful customers.

The rather broad implications of product differentiation analysis are that among companies producing similar products, each has a base market of faithful customers which it will retain if it continues to produce a reliable product at about the same price as its competitors, plus a share of the "floating" market which divides itself among producers on the basis of advertising and/or lower price.

It therefore follows that under imperfect competition it is not necessary to compete solely on the basis of price, or on the basis

of having the greatest number of different models in the market. The best possible net profit position appears to be most likely of attainment if a business decides which markets it will serve, minimizes the number of models necessary to exploit this market fully, and establishes and maintains uniform sales prices, vying with others for the "floating" market through strong selling and advertising policies.

Profit Possibilities in the Current Market

Recognizing that the company is operating under conditions of partially imperfect competition, merchandising and production plans are laid accordingly. An analysis of the total market and the expected company share is made by the company's economists. The latter determine that the total market will take certain quantities of units at selling prices varying with quality and value incorporated in the respective models. Each model sells in a separate market and is therefore only remotely competitive with other company models, which vary widely in design and value. Each model also has a separate market from its competitors since product differentiation by consumers exists. However, in the absence of perfect monopolistic conditions, the company is prevented from selling just any model at the demand schedule prices of consumers, because product differentiation among brands exists only when the inherent value of the goods is approximately equal from one concern to another. For example, Model C from the schedule below could not be priced and sold at Model A's price of $125, since the company's normal purchasers of Model A would recognize the differences existing between this company's Model C and the competitor's model corresponding to our Model A and consequently purchase the competing model. Exhibit 1 presents the total market and the company's expected share at the various levels of operations. It must be borne in mind that each price range and quantity demanded (represented by Models A, B, C, etc.) constitute a separate market only remotely competitive between models.

In interpreting Exhibit 1, it is important to note that the varying of units represents the expected range of operations. For example, for Model E which sells at $30 each, the market will absorb approximately 1,500,000 units. The company's share of the total market is expected to be between 150,000 and 190,000 units.

Schedule of Total Market Demand and Company Share of Market with an Analysis of Costs and Profits at the Various Levels of Operations

(Units, sales value, costs, and profits expressed in thousands.)

Model	Price	Total Market Units	Company Share						Net Operating Profit
			Units	Sales Value	Variable Cost	Fixed Cost: Model	Fixed Cost: Over-all	Total Cost	
	$			$	$	$	$	$	$
A	125	100	10	1,250	970	200	30	1,200	50
			15	1,875	1,365	200	35	1,600	275
			20	2,500	1,960	200	40	2,200	300
B	100	200	20	2,000	1,540	200	60	1,800	200
			30	3,000	2,125	200	75	2,400	600
			40	4,000	3,115	200	85	3,400	600
C	80	400	50	4,000	3,050	200	150	3,400	600
			60	4,800	3,550	200	150	3,900	900
			70	5,600	4,055	200	145	4,400	1,200
D	50	800	70	3,500	2,890	200	210	3,300	200
			80	4,000	3,190	200	210	3,600	400
			90	4,500	3,480	200	220	3,900	600
			100	5,000	3,680	200	220	4,100	900
			110	5,500	3,870	200	230	4,300	1,200
E	30	1,500	150	4,500	3,250	200	450	3,900	600
			160	4,800	3,450	200	450	4,100	700
			170	5,100	3,680	200	420	4,300	800
			180	5,400	3,880	200	420	4,500	900
			190	5,700	4,100	200	400	4,700	1,000

EXHIBIT 1

Variable Costs

Variable costs, composed of material, labor, overhead, and the varying portions of selling and administrative expense, are computed for each model at the various levels of operations. The calculations of variable costs are arrived at in the following manner:

1. The company equilibrium is established at the midpoint of consumer unit demand for each model.

Model	Lower Limit (Units)	Upper Limit (Units)	Average or Company Equilibrium (Units)
A	10,000	20,000	15,000
B	20,000	40,000	30,000
C	50,000	70,000	60,000
D	70,000	110,000	90,000
E	150,000	190,000	170,000

2. The variable costs are computed for each model at the equilibrium position.
3. Holding four models at the average or equilibrium position, the variable costs on the fifth model are computed for each of several quotas between the upper and lower limits of the fifth model.
4. Each model is handled in the above manner to obtain the summary on Exhibit 1.

While this method does not purport to show what will happen when some sales are at the lower limits, others at equilibrium, and some at upper limits, it does provide an over-all estimate of what generally may be expected to happen. Of course, an extensive analysis may be conducted to show the expected results of all the possible combinations of upper and lower limit unit sales, but such an analysis is at best only an estimate and cannot take into account all of the contingencies and hazards of manufacturing. The summary is intended to be an indication of final operating results.

Fixed Costs

Fixed costs, composed of the basic costs of tools, inspection, training, product repair, setup costs, cost of engineering design, fixed charges, and the fixed portions of selling and administrative expense, logically divide themselves into two groups, those over-all company costs which will be experienced no matter what the level of operations is and those costs which will be experienced by reason of the manufacture of a different model. The division of these costs is as follows:

Model fixed costs (single model):

Tools*	$ 45,000
Inspection*	10,000
Product repair*	30,000
Training and setup	55,000
Engineering design	60,000
	$200,000

Over-all company fixed costs (all production):	
Fixed charges (depreciation, property taxes, and insurance)	$600,000
Selling expense*	150,000
Administrative expense*	150,000
	$900,000

* Fixed portion only.

The segregation of fixed costs from variable costs is important since fixed costs bear no significant relationship to varying unit production for any particular model. The further segregation of fixed costs between model fixed costs and over-all fixed costs was made in order that the effect of the addition of a new model be recognized.

In Exhibit 1, over-all fixed cost has been distributed to models on the basis of the number of units of each model to be sold at corresponding operating levels; that is, the $900,000 over-all fixed cost was allocated to each model at the low, equilibrium, and high points of operation. For example:

Lowest Operating Level

Model	*Quantity*	*Allocated Over-all Cost*
A	10	$30
B	20	60
C	50	150
D	70	210
E	150	450
Total quantity	300	
Total over-all cost	$900	
Average cost per unit	$3	

The figures in the last column are obtained by multiplying the respective quantities by the average unit cost. The general theory employed was that since each model was of the same general type of manufacture, each should bear a proportion of the over-all ex-

pense in relation to quantity sold. Because a margin of error is involved in any method of allocating fixed costs, the resulting figures for the equilibrium and high points have been rounded off to the nearest $5,000. As a result three models suffered slightly from an increase in volume and two models benefited slightly.

Exhibit 1 was prepared on the basis of a single model for each price class. However, if it was decided to split the company share of Model D's market into two models, variable cost, based upon past operating results, would remain relatively unchanged, but model fixed cost would increase about $200,000 and net profits decline about $200,000 at the same level of operation. If the company share of the market has not been exploited fully, the addition of a new model will be profitable when the additional sales will result in a $200,000 net increment of sales over added variable to compensate for the added model fixed costs. Thus, if the level of operation for Model D is 90,000 units, and it is believed by management that the addition of another model to sell at $50 will allow the company to sell 110,000 units; the increase in profits is $600,000, the difference between the net operating profit estimates for these two volumes shown on the last column of Exhibit 1, minus the model fixed costs of $200,000, or a net increase of $400,000. This type of fixed cost analysis is important when the number of models to be produced is considered by management in advance of the coming year's production. It is obvious that an unlimited number of models will result in a profitless operation.

Sales Cost Analysis

The sales manager views cost as that amount which, in effect, he has to pay the factory plus an amount for administrative expenses and selling expenses. It is not enough to show the sales manager that his standard costs were so much for a month or a year, since his product line must absorb not only standard costs of production but variances from those standards as well. In other words, the profit and loss statement for his product line will show sales, manufacturing standard cost, cost variances, selling expense, and administrative expense. While the sales manager does not have complete control over manufacturing variances, he does exert a partial control in that it is he who places the original orders on the factory for quantities of models to be produced. Any

deviation from his original order will probably result in a manufacturing variance for which he, the sales manager, is responsible. Of course, it can be a gain variance as well as a loss variance. If he wishes to avoid claims of the manufacturing group as to sales responsibility for unfavorable cost variations, he will make every effort to see that his original orders are changed as little as possible. It might be noted here that the same type of comment may be made in regard to engineering design of models already in production, since an extraordinary number of engineering changes will also result in unfavorable cost variances.

If the sales manager can be convinced of the influence which he exerts on the final operating result, then from the market information developed previously, he is in a position to envision his total operation. For the model which will sell about 90,000 units at $50, he will go to the engineering and cost estimating groups and ask them to develop a model and applicable costs for the best set possible to sell at that price, including all markups. Exhibit 2 breaks down in further detail the total costs for Model D shown on Exhibit 1 without the segregation of variable costs and fixed costs. It will be noted that for the wide range of volume covered by this exhibit, material and labor, while considered variable costs, do not vary directly with volume. In the case of material, several components are assembled to produce the final product. Some components are purchased; others are obtained from subassembly lines; but all are included as material cost. In subassembly production when a certain manufacturing level is reached, marginal costs momentarily increase due to operations being pushed just beyond current capacity, necessitating overtime or additional workers along with attendant other increased costs. Then when that condition is alleviated by still more production, the lower marginal cost trend resumes up to the point of diminishing returns.

Exhibit 2 has also been prepared on the basis of single model production for the market which will take between 70,000 and 110,000 units at $50; the addition of another model will result in an approximate increase in cost of $200,000 representing new model fixed costs as detailed in the preceding section. The cost was predicated upon the use of two assembly lines producing a maximum of 1,500 units in a forty-hour week, each line operating continuously, assembling a model frozen in engineering design.

VARIABLE UNIT SALES AND COST ANALYSIS OF MODEL D

(Expressed in thousands)

Units	10	20	30	40	50	60	70	80	90	100	110
	$	$	$	$	$	$	$	$	$	$	$
Total Sales Value	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500
Material	375	750	1125	1500	1715	1930	2140	2350	2570	2720	2860
Direct Labor	45	90	130	175	220	270	310	350	385	410	435
Factory Overhead	170	200	230	250	270	290	310	330	350	350	360
Tools	45	45	45	45	45	45	45	45	45	45	45
Inspection	10	20	30	45	60	80	90	100	105	110	115
Product Repair	30	30	30	30	35	40	45	50	55	60	65
Training & Setup	55	55	55	55	55	55	55	55	55	55	55
Engineering	60	60	60	60	60	60	60	60	60	60	60
Administrative	35	50	60	70	80	90	95	100	105	110	115
Selling	90	100	110	120	130	140	150	160	170	180	190
Total Cost	915	1400	1875	2350	2670	3000	3300	3600	3900	4100	4300
Net Profit or (Loss)	(415)	(400)	(375)	(350)	(170)	0	200	400	600	900	1200

EXHIBIT 2

Size of Run

Exhibit 3 consists of a chart showing sales and costs of Model D. It has been divided into three segments, ordinates having been erected at 60,000 units and 90,000 units, and the production runs labeled as being short-run lots, medium-run lots, and long-run lots. No particular significance is to be attached to this segregation of production-length runs; it was made for ease in exposition and to facilitate discussions among management groups, such as selling, engineering, production, and accounting.

Exhibit 3 for Model D was constructed on the same basis as would be charts for all four models. From Exhibit 1 company equilibrium points for each model were obtained.

It will be recalled that one of our premises under which Exhibit 1 was constructed was that the market for any model was but remotely affected by the market for any other model; in other words, the design of any one model and the price attached to it will vary to such a large degree from any other model produced by the company that the models will be essentially noncompetitive among themselves. It is readily admitted that there is of necessity some interrelationship of demand between models, but since this interrelationship is not measurable at the time of advance planning, the correction for the shift in demand must be made at a somewhat later date when production has begun and the actual demand for each model becomes known.

Standard Costs

Standard costs for each model at average units marketable are arrived at through the joint efforts of the engineering and cost estimating groups, that is, Model A, 15,000; Model B, 30,000; Model C, 60,000; Model D, 90,000; and Model E, 170,000. Then holding the average units and costs of any four models constant, the units of the fifth model, Model D in this instance, are subjected to cost analysis between the upper and lower limits of potential market as well as the area from 70,000 units to 110,000 units. Exhibits 2 and 3 present these data. The break-even point, or the point of zero profit, is at 60,000 units.

Of course no one will operate under short-run lot conditions unless forced to do so for a limited period of time. It might be that business conditions are generally depressed, making it impossible

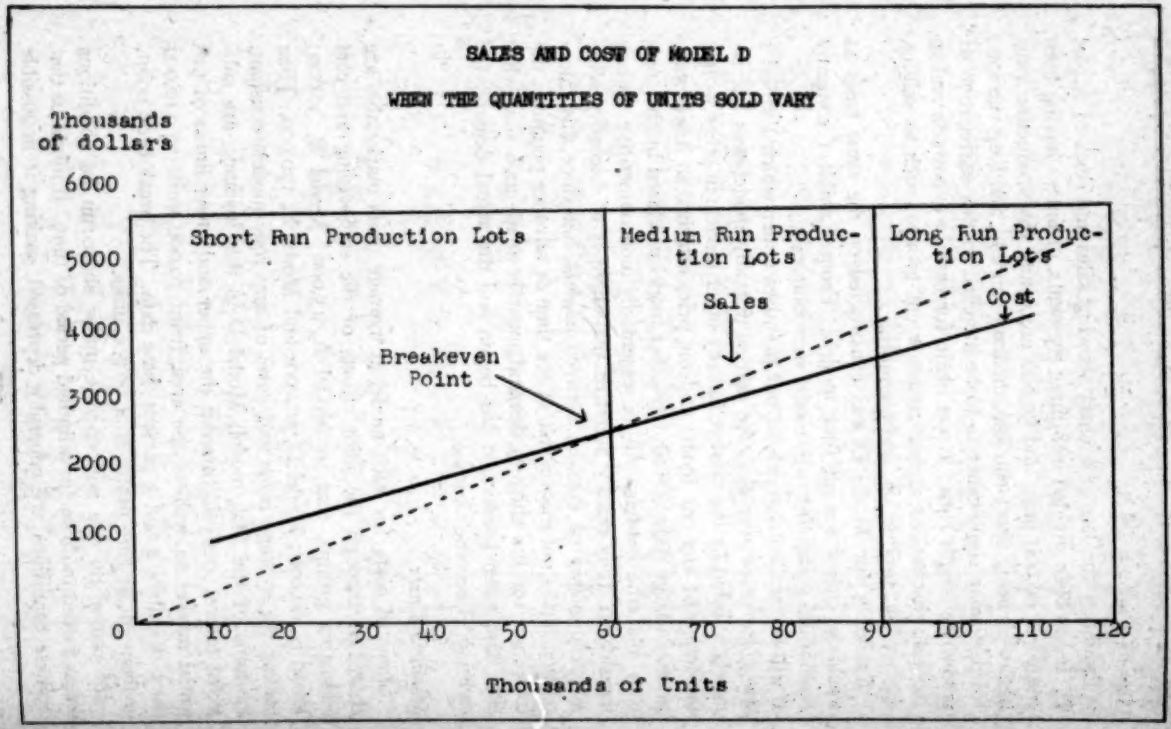
SALES AND COST OF MODEL D
WHEN THE QUANTITIES OF UNITS SOLD VARY
Thousands of dollars
6000
5000
4000
3000
2000
1000
0
Short Run Production Lots
Medium Run Production Lots
Long Run Production Lots
Sales
Cost
Breakeven Point
10
20
30
40
50
60
70
80
90
100
110
120
Thousands of Units

EXHIBIT 3

to sell the product in sufficient quantities to make an over-all profit, yet the company would continue to operate on a reduced quantity basis to keep the product upon the market, retain key employees, and earn at least a portion of fixed charges and the fixed portions of selling and administrative expense rather than go out of business. It is wiser to operate at a loss temporarily in preference to liquidating on an already depressed market, and in preference to abandoning production until the business cycle swings upward again. Then too, even in times of good business, it is often deemed expedient to produce a single model at a small loss to aid the business as a whole in making a larger profit in those cases where costs which otherwise would have to be borne by other models are partially absorbed by the loss model. There is the further consideration of satisfaction of prior commitments which may necessitate the manufacture of less than economic quantities to meet these obligations.

Fluctuations in Output

However, the prime purpose of this variable unit analysis is not to exhibit short-run and long-run conditions, but rather to portray realistically the effects of reducing quantities being produced or the interrupting of the production of one model in order to substitute another. In other words, standards are based on the average number of units expected to be produced—90,000 in the case of Model D. Any deviation from this norm will produce cost variances which are not the responsibility of the manufacturing group, but of the sales and engineering groups. Thus the sales department has information at its command to foresee the results of projected changes in volume of goods produced. If, for example, it is decided that more than 3,000 units of Model D are wanted weekly, the answer is not to be found by looking further to the right on Exhibit 3, since this exhibit was developed on the basis of two assembly lines producing continuously on a forty-hour week. The added production's effect on the model's profit position would be based on the introduction of a short-run lot on another assembly line. This chart is not exhibited here, but would be of the same type as Exhibit 3, with amounts for the various elements of cost being computed under the adjusted conditions.

There is a further consideration to be kept in mind and that is

the effect of discontinuing another assembly line's production, say of Model E, to substitute Model D, thus turning Model E into a short-run proposition also. Of course, there is one condition under which the effect increased production can be anticipated by reading further to the right on Exhibit 3, namely, where units produced are increased by 20 to 25 per cent, that is, to 3600 or 3750 units weekly, for a limited period of time by working overtime. This will result in slightly higher labor costs resulting from the overtime premium and probably higher maintenance and material costs, none of which has been reflected in Exhibits 2 or 3.

Design Changes

Engineering design changes interrupt production and necessitate making adjustments on those units which have already been completed in addition to doing all new work based on revised specifications. Such changes will result in the same type of short-run production and costs. Once a line is in production, any adjustments are deleterious to volume performance and low costs and therefore should be avoided if at all possible. In short, it will be noted that the variable budget type of analysis employed here is an adaptation of factory overhead variable budgeting combined with a break-even analysis.

Integrated Financial Statement Budgets

A further use of the variable unit analysis of Exhibits 1 and 2 is the development of an estimated profit and loss statement, balance sheet, and a cash receipts and expenditure budget. Before embarking on a sales and production program, it is vital that we know the results of projected operations to determine that the cash requirements of the program are within our means and the expected profits are satisfactory. This means that not only the year-end results, but also the interim results must be considered. For example, an overambitious production program may seriously impair our working capital position during the year, but not at the year's end. Therefore prime consideration must be given to the effect the sales and production programs will have on the capital structure of the company.

Working from market information furnished in Exhibit 1, the sales department estimates what it can sell, dividing the year into

quarters. In this case, average units marketable are used as a basis for the sales budget. Using a summary of all models at average units marketable for each, (Exhibit 2 was prepared for Model D) a profit and loss summary is developed exclusive of interim cost variations. The latter are developed through a comparison of the standard cost of production and budgeted cash expenditures. Engineering, selling, and administrative budgets are now established, based on the total allowance made in the variable unit analysis.

The production program is then coordinated with the sales program, production being scheduled by quarters as were sales. Sufficient quantities to meet sales requirements plus or minus any anticipated changes in the interim inventory which might be made to level out production peaks form the basis of the production budget. The production units are converted to standard cost. Expected cash outlays are then developed based upon budgeted production standard cost, adjusted for the difference in the time of purchase and the time of input of material and adjusted for the difference between standard cost and budgeted expense, resulting in interim cost variances of factory overhead and material handling. No other cost variances are to be budgeted for any time during the year and the budgeted year-end factory overhead and material handling variances are zero.

Cash expenditures for other expenses and capital outlays are also estimated to complete the projected cash outlay budget. Cash receipts or collections on sales are predicted on the basis of past collection experience.

The projected balance sheet is then prepared from data already developed for the same time periods as sales and costs. If the projected operating results are reasonable, the entire plan is adopted for the coming year. It will be noted that under the adopted system of establishing standards based upon expected sales volume, no cost variances are budgeted for the entire operation.

The importance of an integrated sales, production, and financial program cannot be emphasized too strongly. It must be proved that a program is sound before company capital is ventured, or future operations may be impaired or even considerably curtailed through the lack of financial foresight.

COST ACCOUNTING IN THE LAUNDRY INDUSTRY

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INDUSTRY may be roughly divided into three broad classes:

1. Production, including manufacturing, mining, and agriculture, in which labor and materials are converted into salable finished products of greater value.
2. Distribution, including wholesale and retail establishments whose functions are to purchase commodities from producers in large quantities and sell them to consumers in much smaller quantities.
3. Service establishments performing work for production and distribution organizations and for each other, using tangible or intangible property belonging to others. In order to justify their existence they must perform service better, quicker, or cheaper than others can do for themselves.

All of the establishments in each group have common characteristics, although those in the service group differ from each other more than in manufacturing or merchandising. Except for the highly specialized transportation and financial groups, we find among service establishments such extreme ranges as auto repairing and accounting, blacksmiths and beauty shops, livery stables and laundries. The accounting problems of these groups of industries are correspondingly dissimilar. Manufacturing accounting, regardless of the nature of the product, follows a definite pattern in which the work-in-process account and emphasis on production cost is a characteristic. In wholesale and retail establishments, the greatest emphasis is placed upon inventory, sales and accounts receivable control, regardless as to the commodities handled.

Service establishments may have many people engaged in production, yet because they work on property belonging to others, work in process is usually nonexistent or of negligible importance. Many establishments serve thousands of customers and have major problems of accounting for sales and accounts receivable, yet inventories consist principally of supplies which are not profit determining factors.

These characteristics of service industries present new problems to many accountants whose training and experience has been confined to manufacturing and merchandising accounting, and no text books have been written yet on accounting for service industries. Generally accepted accounting principles have been applied to some of the larger, more widely distributed, and better known services, such as transportation and financial institutions, hotels, and government. The great mass of service establishments, however, is so diversified in their nature, so widely dispersed geographically, or made up of so many very small units that it is not surprising to find profit and loss statements prepared by reputable accountants for service establishments showing "Cost of Goods Sold" and "Manufacturing Cost" when work performed on property belonging to others is neither manufactured nor sold.

Economic Importance of Service Industries

The importance of service industries as a part of the national economy is indicated by the Census of Service Establishments in 1939 from which transportation, banking, hotels, hospitals, and the professions are excluded. It appeared that in 1939, 1,754,538 people were working in 646,028 establishments, representing 102 different services with aggregate receipts of $3,420,417,000. Barber shops accounted for the largest number of establishments, followed by beauty parlors, automobile repair shops, and shoe repair shops. From the standpoint of both employment and receipts, however, laundries were the most important of the service industries, having receipts of $453,579,000 and employing 249,008 people. When we include the closely allied cleaning and linen supply industries, we account for 30 per cent of all employees engaged in all service establishments and 10 per cent of all receipts from service. Payrolls in laundry and allied industries averaged 48½ per cent of receipts in 1939 as compared with 32 per cent for payrolls of all service establishments combined. Herein lies an important cost problem, because while a larger percentage of the laundry sales dollar is expended for payroll than in any other major industry, the margin of profit in recent years has been very small, according to statistics published by the American Institute of Laundering indicating average operating profits for 1939 of only 1.30 per cent of sales.

Development of Uniform System in Laundry Industry

While laundering is perhaps the most ancient service trade, and the first power laundries in America were established nearly a hundred years ago, it was not until the early years of the present century that the individual plants assumed sufficient size and importance to warrant the development of accounting methods particularly adapted to the industry. In 1914, the Laundryowners' National Association, the oldest national trade association in the United States, took the first step toward the development of uniform accounting methods for the industry by approving a uniform accounting system and, a few years later, established a department of cost accounting in the National Association.

During World War I, the laundry industry grew very rapidly. In the prosperous years following the war, representatives of the National Association were very active in installing uniform accounting systems throughout the country. Accounting and cost methods advocated by the National Association did not meet with universal acceptance, however. A considerable number of accounting-minded laundry operators, together with a small group of accounting firms specializing in laundry accounting, felt that a more logical classification of expenses should be developed. They proposed methods which largely supplanted the national system in local areas. Actually the systems and methods designed by these specialized accountants differed from each other, as well as from the uniform system approved by the National Association. As a result, there was no practical uniformity in either classifications or accounting methods in the laundry industry until 1933.

During that year, in anticipation of the establishment of a code of fair competition under the N. R. A., a conference of the representatives of the principal accounting firms specializing in the laundry industry and the officials of the National Association was held. In this and subsequent conferences held during 1933, a new uniform expense classification for the laundry industry was unanimously approved by the group. The new classification quickly superseded the previous classifications and is now practically universal. In the period prior to 1933, the National Association had advocated a single uniform system for the industry. Since that time, the emphasis has been placed upon a classification which has

been made sufficiently flexible to permit its use in connection with systems designed for all types and sizes of laundries.

Perhaps, because the early laundry bookkeeping systems were misnamed "cost accounting systems," the vast majority of laundry-owners who have adopted such uniform methods are of the firm opinion that they have cost accounting systems in their plants and that they "know their costs." The universal practice of expressing these so-called costs in the form of percentages of expenses to sales for comparison among laundries, and for control purposes within a plant, has led most laundryowners to believe that these "percentage costs" are all that is necessary or desirable for managment control purposes, or for the establishment of a profitable price structure.

Peculiarities of the Laundry Industry

The laundry industry has several accounting problems peculiar to itself. First, it manufactures nothing, yet more than half of the sales dollar is expended for production. The industry sells nothing tangible, yet it has a sizable sales organization, maintains an elaborate distribution system, and spends about one-quarter of its sales dollar for delivery and selling expenses.

Production and sales departments must be closely coordinated because laundry work cannot be produced any faster than it is brought in, and the production department must at all times be ready, without notice, to meet whatever demands are made upon it by the public. The industry operates on a cycle of a week, therefore an accounting unit consists of either four or five full weeks. For this reason, a thirteen-month calendar is commonly used in the industry, and, when not used, each quarter of a year consists of two four-week months and one five-week month.

Even a comparatively small laundry plant may serve several thousand customers regularly every one, two, or perhaps three weeks. The unit of sale is the laundry bundle, ordinarily averaging between one and two dollars. Laundry routemen are usually made responsible for collecting cash for all bundles delivered, except from customers having authorized charge accounts. Routemen are usually permitted to leave bundles without payment therefor, at their own discretion, and sometimes at their own risk. Thus, a difficult accounts receivable problem involving a great

many small accounts exists in most laundries, particularly if management control over credits is at all lax.

Types of Laundry Service

Quality and methods of washing are substantially uniform for the work of all customers in any given laundry. There are great differences, however, in the quantity and quality of ironing and finishing the articles in the laundry bundles, ranging all the way from work which is sent home damp, without any finishing whatsoever, to the highest quality of hand-finished work. Consequently, there are many possible combinations of laundry service which may be offered to the public. These combinations are commonly referred to in the trade as "services." Sometimes these services are given names which are somewhat descriptive and, at other times, names which, in the opinion of the laundry sales manager or his advertising counsel, are believed to have sales appeal. In this respect, laundry services are somewhat similar to life insurance plans or contracts in which various combinations of term insurance, straight life, and endowment have been put together in ways which enhance sales appeal, or may better meet the requirements of individual policyholders.

The popularity of these laundry services has varied from year to year in accordance with economic conditions, styles of clothes, and improvements in laundry equipment. The power laundry industry really began with the invention of the hard collar and the stiff shirt, and, in the nineteenth century, these two articles represented the vast majority of the work sent to public laundries. The first decade of the twentieth century saw the development of family flat work as a principal service. From 1910 to 1920, damp wash became increasingly popular and this, for the first time, brought laundry service within the reach of people in modest circumstances. During the ten years following 1920, the completely finished family bundle, in which a substantial portion of the finishing was done by hand, became popular at prices then considered dangerously low, but now looked upon in envy by present-day laundryowners. The ten years preceding World War II were characterized by the increasing popularity of so-called economy or budget bundles, produced largely by machinery and, in many instances, sold at prices so near the cost of production that the

profit margin was very thin and sometimes nonexistent. During the war years, price control has prevented the development of new services or pricing methods, and shortage of skilled labor, coupled with unprecedented demand for laundry service, has forced most of the laundries to concentrate their efforts on washing and ironing of flat work and shirts, for the processing of which specialized machines are available requiring a minimum of hand work.

Cost Surveys

At the same time that the first uniform accounting system was adopted by the National Association, a system for the determination of cost of laundering different types of articles was approved. This method was quite complicated, not well-understood, not particularly accurate in its results, and therefore was not widely used. The department of cost accounting of the National Association soon abandoned the general installations of detailed cost systems and substituted cost surveys which were, in effect, studies of production and costs for a specified period, usually a week, for the purpose of determining the costs of the various laundry processes and the profits derived from the various services. Cost surveys were also conducted during this period by accountants who were independently specializing in laundry accounting. Wide differences of opinion arose over the methods of distributing collection, delivery, selling, and administrative expenses to the different services, and continued until the accounting conference of 1933, at which time, as a result of considerable study and research, uniform methods for detailed cost determination were accepted. While efforts to simplify detailed cost procedure have met with some success, the cost survey is still the generally accepted method for determining detailed cost in laundries. These surveys are expensive and require a detailed knowledge of laundry operations, as well as of the underlying principles of cost accounting. For this reason, only a few of these surveys have been conducted in recent years, and such cost knowledge as is available to the industry is based upon reports issued by the department of cost accounting of the American Institute of Laundering, bulletins issued by our organization, and confidential information which is in the possession of a very few of the more progressive laundry-

owners who are operating detailed cost systems or in whose plants surveys have been made.

Cost Figures

Despite the apparent impracticability of maintaining continuous cost systems in laundries, two developments of cost procedure have been adopted by many progressive laundries and have proved to be useful tools of management. Laundries having dry cleaning and other specialty departments in many instances allocate costs quite accurately for each accounting period between laundry, dry cleaning, storage, and other departments.

It has also become quite common practice to prepare weekly reports showing the labor hours and productive labor cost of each department or production center, such as, identification, washing, shirt ironing, etc., in comparison with the amount of work produced expressed in pounds, pieces, or bundles. The resulting labor cost per unit and units produced per operator-hour have been found to be very useful in controlling labor costs. The engineering department of the American Institute of Laundering has developed an excellent method of measuring production in the pressing and hand finishing departments, in which cost varies frequently in inverse ratio to pounds of work. Point values based upon productive studies have been computed for many different types of articles handled in these departments, production being measured in terms of point per operator-hour.

Making the Cost Survey

Laundry costs by services are ordinarily determined, first by preparing from current accounting and payroll records a schedule of the total cost of laundry operation for the one or two-week period of the survey. The uniform expense classification for the laundry industry facilitates the preparation of such a statement because expenses are grouped approximately in the order required for cost analysis as shown on page 595.

The six groups that represent plant cost are then distributed to productive departments or centers, such as, marking or identifying, washing, tumbler drying, flat ironing, shirt ironing, wearing apparel ironing, and packaging.

NET SALES		$———
Productive Labor	$———	
Laundry Supplies	———	
Power	———	
Building Overhead	———	
Machinery Overhead	———	
Indirect Plant Overhead	———	
Total Laundry Cost	———	
Delivery and Sales Expense	———	
Office and Administrative Exp.	———	
Total Cost		———
Operating Profit		———

The productive labor cost for each center is determined exactly for the period of the survey. Supplies usually can be apportioned directly although some items, such as, machine coverings and nets, are more accurately charged if total costs for a period of a month or more are averaged for the survey period. The distribution of power cost is the most difficult of all because power (or steam) is used for three purposes: the heating of water, the generating of steam for operation of ironing machines, and mechanical power for the operation of all moving machinery, this latter usually being a by-product of water heating. Generally, about three-quarters of the entire power cost is chargeable against the washing process, the remainder being charged against the several finishing departments. Building overheads are usually distributed according to rental value or floor space, machinery overhead in proportion to machine values, and such portion of indirect plant overhead as cannot be allocated directly is apportioned in proportion to productive labor hours in the various productive departments for the period of the survey.

Allocating Costs to Services

Total laundry cost having been completely allocated to departments or production centers, the cost of each center should be apportioned to services, either directly or in proportion to the number of units in each class of service produced in each department for the period of the survey. The determination of the units of

production in each department for each service is, in practice, one of the most difficult problems of the survey because such data are ordinarily not accumulated in laundry plants, and employees are usually neither qualified nor experienced in the compilation of even the simplest type of cost records. Therefore, if accurate records are to be obtained, any cost accountant conducting such a survey should either have an intimate knowledge of laundry production methods or study the operating methods of the particular laundry thoroughly before attempting a survey.

Delivery, sales, office, and administrative expenses are allocated directly to services. Because of the fact that delivery cost represents 20 per cent or more of laundry sales income, the incorrect distribution of this important item may distort total cost and lead to incorrect conclusions as to the profitability of the several services. Probably because of the fact that commissions to routemen are usually paid on a percentage of sales basis, the latter method was recommended as a basis for distribution of delivery cost to services, by the Laundryowners' Association until the cost conference of 1933. As a result, it was commonly believed in the industry that large finished family bundles, even at what is now considered a high rate per pound, were unprofitable and that small bundles containing shirts or flat work at high list prices were highly profitable. A proper allocation of all delivery cost except commissions on a weighted-bundle basis, a method which is now generally accepted by laundry cost accountants, has shown that the cost of service, which is a "per bundle" or "per customer" cost, is so important a factor that small bundles of less than 75¢ to $1 in revenue are almost invariably unprofitable, irrespective of price per pound or per piece.

Costs of the office are always apportioned to services in proportion to bundles because each bundle represents a laundry list which is the unit of laundry office work. There appears to be no completely satisfactory basis for the distribution of the remaining administrative cost, the major item of which is executive salaries. The cost of this group is sometimes distributed on a bundle basis, sometimes in proportion to productive labor, and sometimes on a sales basis, the latter method being as always a confession of failure to find a more accurate unit of measurement. Fortunately, the group is usually of minor importance as a cost fact, so that any

distortion of cost of each service and consequent profit or loss is of slight importance.

Costs and Prices

Since laundry prices before O.P.A. remained constant for long periods of time in most laundries, the influence of detailed cost accounting on prices and profits has been felt principally as new services were established by leaders in the industry who had cost data at their disposal. Traditional laundry prices had little relationship to the cost of production or service, and many sales-minded executives established prices of new services regardless of cost upon the theory that the "law of averages" would provide profits from the business as a whole, even though important and sometimes rapidly increasing services were known to be unprofitable.

The war period, with control of prices, coupled with decreasing efficiency and increased cost of labor forced many laundry operators, because of shortages of help, to eliminate all unnecessary refinements of service in order to provide essential service to the largest possible number of people. Since the higher priced services involved a great deal of hand work, and consequently skilled manpower, many laundries, forced to streamline or completely eliminate these services, discovered that savings in cost invariably more than offset loss of revenue, and that increased profits for the business as a whole resulted. This practical demonstration of facts which had been previously known by laundry cost accountants has convinced many hard-headed laundry executives that cost accounting can and should be an invaluable aid to effective laundry management in the postwar era.

ACCOUNTS RECEIVABLE IN VOLUME

By John D. Elliott,
Assistant Supervisor, Customers' Accounts Department,
The Detroit Edison Co., Detroit, Mich.

WE must constantly be looking for short cuts to the voluminous amount of bookkeeping which has to be performed in operating all businesses. Office equipment, business machine, and paper manufacturers are also endeavoring to lighten this burden. Many short cuts already have been developed, and where there is a volume of records to maintain it has been possible to apply mass-production method. A typical field for the application of mass-production short cuts to the maintenance of accounting records is in handling account receivable records in an electric, gas, or water utility where there is a large volume of similar accounts which are billed and paid (in most instances) at regular intervals. This article outlines such a routine. Some of the features described are now quite commonly used throughout the utility industry; some features are in use only by The Detroit Edison Company, while other features are being studied for possible use when new equipment is available. However, the plan is not imaginary and is practical. Mechanical operations have replaced the manual operations wherever possible, which tends towards accuracy as well as efficiency.

The Customer's Record

The customer's record is a tabulating card 3¼ inches by 7¾ inches. It is a card into which holes have been punched similar to those in a player piano roll. When these punched cards are passed through various machines built for that purpose, electric contacts made through the holes actuate the machine to either add, subtract, multiply, list, interpret, reproduce the punched holes into another card, and perform many other similar operations. The customer's record card is, in effect, a by-product of the billing process. It was used as the means of computing and printing the customer's bill. There is one card for each such bill.

To facilitate handling, each customer is assigned an account number, and his records are so marked. The account number comprises three groups of numbers referred to as the major control unit, minor control unit, and folio numbers. The folio number is

a permanent number assigned to each account designating the premise at which the customer is receiving service and the date the account became active. The minor control unit number is a permanent ledger number given to accounts arranged by groups of approximately 200 accounts to facilitate meter reading, billing, reference, and control balancing. Accounts are filed alphabetically in the minor control unit according to street names and numbers. Folio numbers are so assigned as to run in numerical sequence in the ledger. The minor control units consists of accounts for customers located in a small geographical area consisting of one or more streets. The major control unit number represents a much larger group of accounts (usually those accounts whose meters are normally read in one workday) and is also used as a control unit. In this company there are over 800,000 accounts maintained in 5,500 minor control units which are in turn maintained in 75 major control units.

The customers' record cards are housed in filing cabinets, each minor control unit being separated by a tab, each card representing one debit posting to accounts receivable. This is commonly referred to as an "open item" plan of accounts receivable.

Accounts Receivable Files

Three accounts receivable files are maintained and must be in balance at all times. They are the customers' record file of open items, a minor control file, and a major control file. The customers' record file is composed of the customers' record cards described above. All changes made to this file are summarized, and the same changes, in dollar value, are made to the minor control file which is again summarized in the major control file. The control files are used as a means of balancing the customers' records file and as a tie-in between the 800,000 accounts in and out of the customers' records file and the general ledger accounts receivable account. The control files are also open item files composed of tabulating cards. A more detailed description of these files and their relation to one another is outlined below.

Debit to Accounts Receivable

A register of all net billing is mechanically listed during the process of billing from the billing cards (which later become the

customers' record cards). An individual billing register is prepared for each minor control unit of accounts, the accounts being grouped according to billing rate, tax exemption status, etc. Summary detail revenue cards (tabulating) are automatically prepared in the same operation for each group in each minor control unit. These detail revenue cards are used at the month-end to accumulate the statistical revenue and tax reports. Journal entries are prepared from these reports, crediting the revenue and tax liability accounts and charging accounts receivable in the general ledger. In this manner the debit to accounts receivable is built up directly from the same customers' record cards that are maintained in the customers' record file.

Detail revenue cards are summarized by minor control unit, automatically preparing a debit accounts receivable card, which is filed in the minor control file. A summarization by major control unit of these debit accounts receivable cards is automatically prepared, and a debit summary accounts receivable tabulating card is prepared for the major control file.

In this manner the minor and major control files are debited—compiled mechanically from the original customer's record card. The customers' record file is debited by the filing of the customer's record card after billing.

Credit to Accounts Receivable

As bills are paid, the stubs (approximately 25,000 daily) are retained as a source of information to be used in applying credits to customers' bills. The sorting of these stubs to the control units and account number sequence (the same sequence as the accounts are maintained in the customers' record file) for convenience in posting is normally a voluminous task. Because our bills are of heavy paper stock and with punched holes in the same manner as tabulating cards, the stubs can be mechanically sorted to the proper sequence in a fraction of the time normally required by manual sorting.

Paid stubs and customers' record cards from the customers' record file sometime in the near future will be placed in a machine which mechanically removes from the file the record cards which correspond to the stubs by comparing the holes punched in each. Customers' record cards now must be removed from the custom-

ACCOUNTS RECEIVABLE FILES
Minor Control File
(100,000 Cards)
Summarization of daily transactions by minor control unit. Portion of file renewed each cycle balance date.
General Ledger Sheet
Summarization of monthly transactions.
Balance a portion each day.
Balance a major control unit each cycle balance date.
Balance at Month End
Customers' Record File
(400,000 Cards and 1,000,000 transactions per month)
One card for each unpaid billing of 800,000 customers (billed bi-monthly).
Major Control File
(8,000 Cards at month end)
Summarization of daily transactions by major control unit. Entire file renewed each month end.

ers' record file manually. The debit is removed from the open item file instead of filing or posting a credit item.

The removed cards are mechanically tabulated for totals to balance with daily cash receipt totals. In cases where a customer's bill is not paid in full, a "partial payment" tabulating card is prepared and substituted in the balancing operation for the customer's record card. In cases of partial payments the customer's record card is not removed from the file, but the partial payment card is inserted as a credit in the customers' record file with the original customer's record card. In cases where a customer has paid his gross bill after the due date (only net billings are set up as accounts receivable) a special hole is punched in the customer's record card which actuates the machine, while tabulating the cards for balancing purposes, to add the gross bill as well as the net bill and also to accumulate the amount of discount forfeited.

When the paid customers' record cards and partial payment cards are tabulated for balancing purposes, totals are taken by minor control unit, and a summary credit card for net amounts paid is automatically prepared for each unit. These summary cards are proven again to the daily cash receipt total, and again summary credit cards are automatically prepared for each major control unit. The summary cards are filed in the minor and major control files. The paid customers' record cards are automatically stamped "Paid" during the balancing operation and are then filed in a paid-up file for future reference.

Daily cash receipt totals are accumulated until the month-end when journal entries are prepared crediting Accounts Receivable and Forfeited Discounts and debiting Cash in the general ledger.

Other credits to Accounts Receivable, such as charge-offs to uncollectible and miscellaneous cancellations, are similarly handled by either removing the customers' record card from the file or placing a credit card in the customers' record file. The minor and major control files are adjusted accordingly, and the changes are summarized at the month-end and journal entries prepared to change the general ledger.

Balancing Accounts Receivable

You might still be wondering, "Why the three accounts receivable files?" This is why:

The accounts receivable records must be in balance with the account in the general ledger, but to endeavor to balance the approximately 800,000 accounts in the open item file with the general ledger account at the month-end would be too great a task. Instead we distribute the work evenly over a two-month period, by balancing on a cycle, a portion of the total number of accounts each workday—usually one or more major control units. The portions are balanced approximately 45 days after the due date when there are the least number of outstanding records in the customers' record file. This is just prior to the filing of the customers' record cards for the next cycle of billing. The number of cards in the minor control unit for that portion is at the maximum, being an accumulation of the daily transactions by minor control units since the last cycle balance date 60 days previously.

The balancing is accomplished by running through a tabulating machine the debit customers' record cards and the credit partial payments cards remaining in the customers' record file, automatically obtaining outstanding balance totals by minor control unit. The cards accumulated in the minor control file are mechanically sorted to minor control unit sequence and similarly tabulated. The totals are compared for each minor control unit and must remain in balance. If out of balance, the unit is examined and the error located. Outstanding balance cards are automatically prepared by minor control units from the listing of the customers' record cards. These outstanding balance cards make the first entry of a new minor control file being set up for the next control period or cycle, replacing the cards accumulated since the last cycle balance date which are destroyed. The customers' record and partial payment cards are returned to the customers' record file. At the same time the portion of the minor control file being balanced is proven to the major control file by the major control unit in the same manner. This proves the portion of accounts receivable balanced is in balance in all three files.

At the month-end the major control file is sumarized and balanced to the general ledger accounts receivable account, thereby completing the tie-in between the 800,000 customers' accounts and the general ledger account. Outstanding balance cards are prepared by major control units and replace the cards in the major control file which have accumulated during the past calendar month.

PLAN TO ATTEND THE

Pennsylvania Regional Cost Conference

YORKTOWNE HOTEL, YORK
SATURDAY, APRIL 6, 1946

Program

Morning Session:

The Control of Prime Costs at Operating Levels

C. E. Headlee, Director of Industrial Accounting, Westinghouse Electric Corporation.

Afternoon Session:

The Control of Direct Expenses of Operating Departments

Jesse G. Kline, Chief Cost Accountant, The Atlantic Refining Company.

Revitalizing Standards for Control of General Expense

Edward J. Hanley, Secretary and Controller, Allegheny Ludlum Steel Corporation.

Evening Session:

BANQUET

SPEAKER

ENTERTAINMENT

***Sponsored by the* YORK, HARRISBURG, LANCASTER, *and* READING CHAPTERS**

OUR OPEN FORUM

Adapting Costs to Purpose for Which Used

Editor, N. A. C. A. Bulletin:

On page 442 of Section II of *N. A. C. A. Bulletin* dated January 1, 1946, there appears the following statement: "The foregoing procedure for inclusion of the implied depreciation in cost is of particular significance currently for purposes of comparative cost analysis as between two of the company's plants whose managements are competing for certain war-developed production. The cost comparisons are of immediate importance since they may govern a top management decision to continue or to abandon one of the plants." This statement gives the impression that the use of implied depreciation can be helpful in deciding whether or not a factory should be abandoned. My experience leads me to believe that it would be much more likely to be misleading.

Accounting computations, analyses, and reports should be designed for the purposes for which they are to be used. We see this in the difference between the balance sheet of a going concern and the statement of affairs of a company being liquidated. Ordinary cost accounting procedures with standard or normal overhead and depreciation rates are designed for a business operating under a given set of conditions. They do not and cannot show what would happen if the basic conditions themselves were changed.

The proper solution in a case of this kind is to set up a series of estimated profit and loss and investment statements or budgets showing what would happen under each condition being considered, for example, (1) if both plants were operated, (2) if Plant A were operated and Plant B abandoned, and (3) if Plant A were abandoned and Plant B operated.

In setting up such statements it is necessary to examine every item of revenue, cost, expense, and investment to see what in fact would happen to it under the proposed condition. The amount which is saved when a factory, process, product, or market is abandoned is not likely to be the same as the amount which is fairly chargeable against it while it is an active part of the business. Salvage, maintenance, and in some cases replacement cost are factors in a decision respecting the future but depreciation as such is merely a reflection of the past. The purpose of depreciation accounting is to charge off the cost of a facility over its useful life. If the useful life is terminated, there is a reduction in the number of periods over which the depreciation is to be spread, but there is no reduction in the total amount which must be charged off. A past expenditure can be saved only to the extent of the second-hand or salvage price of the item purchased.

E. Stewart Freeman,
Boston Chapter.

Fully Amortized Emergency Facilities

Editor, N. A. C. A. Bulletin:

Mr. Armstrong's treatise on "Fully Amortized Emergency Facilities" in the February 1 *Bulletin* is very well handled. He quite aptly describes the necessity for cost accountants to adopt a reasonable, consistent plan to make possible a comparison of similar operations and a proper determination of a reasonable selling price. His reference to the Administration "fact-finding procedure" in wage disputes should convince anyone that the act of disregarding such depreciation invites financial disaster.

Mr. Armstrong indicates that the depreciation normally applicable to assets which have been subjected to expedited depreciation may be considered a price margin for competitive purposes, but he fails to add that therein lies eventual ruin. It is agreed that such a policy will get the orders and will temporarily reap a normal or perhaps, through volume, slightly abnormal profit. But what of tomorrow? Business is organized on the theory of continuity. Like "Old Man River," it should keep on rolling. What will happen when "experienced depreciation" has shelved the "Certificate of Necessity" equipment, and replacement is necessary?

At that time the customers are buying your merchandise at the extremely low price permitted by usage of "cost-free" equipment. Then these prices shoot skyward as if harnessed to jet propulsion, and howls of protest are accompanied by cancellation orders. Customers are not concerned with explanations. Your prices have skyrocketed during a period of price decline and no explanation will suffice.

Should not selling prices be determined on the basis of continued production costs, rather than on fortuitous circumstances of a temporary nature? In other words, my theory is that in the over-all planning for a successful and lasting business, we should price for tomorrow's market. One can thus profit by long-range planning.

As Mr. Armstrong indicated, price cutting is possible to an extent that insolvency soon strangles all competition. Like Frankenstein, however, we have created a monster which can be depended upon to turn upon us. Insolvency is not contagious, but generally a price policy which closes other plants will eventually turn into a whirpool from which no one can escape.

Clark L. Simpson,
Washington Chapter.

Taking the Physical Inventory

Editor, N. A. C. A. Bulletin:

The well-prepared article on "Taking the Physical Inventory" by W. B. Atchison, Jr., in the *Bulletin* of December 1, 1945, was of unusual interest as our audit staff had just completed a review of our internal audit procedures on this subject. It would appear that the author reflects more of an engineer's viewpoint than that of a controller. The organization planning, as discussed, covered important features for controlling a physi-

cal inventory. However, not enough emphasis was given to the importance of assigning accounting personnel to the crews and, more particularly, that accounting people head the various supervisory phases.

Much of the advance planning as detailed can be eliminated by the establishment and publication of standard procedure instructions setting forth broad principles to be adhered to in taking inventory. It is necessary then only to supplement these by specific instructions peculiar to the particular product or group of products being inventoried. The organization chart exhibited provides two counters for each tag-writer. Better utilization of manpower will be provided, without loss of efficiency, by using one counter to each tag-writer, the tag-writer taking count simultaneously for comparison with count by the regular counter. In large inventories, such as the one discussed, it would be desirable to list initials of counters and tag-writers on inventory cards in order to clarify questions arising subsequent to completion of inventory.

Discussion indicates materials will be arranged at time of inventory. This should be done prior thereto, thereby facilitating straight-line recording by list crews. Sections can be numbered or lettered with permanent designations, obviating the necessity for performing this function each time inventory is contemplated. In obtaining inventories, it may be desirable to list all prime product on "Prime Product Tags" and all damaged, obsolete, scrap product on a "Special Tag." This procedure would provide for positive classification and valuation.

No provision has been made for switching the counting crews so as to check accuracy of determinations made by other crews. When the crews are comprised in large part by operating personnel, the routine of switching crews will assure reasonable checking. On inventories of the scope discussed, spot checks by the section supervisor, at time of listing coupon section of the tag, are usually inadequate for want of time. Since the inventory valuation is based on quantity and quality, together with stage of completion of in-process materials, it is desirable to arrange inventory crews, so that independent verification may be obtained of the initial listings.

A valuable adjunct to a physical inventory is the independent observation made by special representatives of the management. The constant circulation of such representatives among crews has definite and proven psychological value. These representatives, as a result of test checks during such observation are in a position to appraise attitude and degree of accuracy and so advise management.

With an inventory sufficient in size to require crews totaling 75 men in its taking, it would appear that this performance at one time during the year would provide a severe jolt to operations, and would certainly not be conducive to accuracy. Consideration should be given to establishing a simple, yet effective, departmental control of stocks whereby verification inventories could be obtained at propitious times. A complete inventory does not necessarily mean a simultaneous determination at a given date.

Mr. Atchison's article reveals a thorough knowledge of the problems inherent in taking physical inventories and is replete with sound counsel. We

are in hearty accord with the principles outlined. Our comments are based on actual experience gained in the attempt to place these principles into practice and deal entirely with possible refinement in procedures.

C. E. Tyner,
Birmingham Chapter.

Installing An Incentive Wage Plan

Editor, N. A. C. A. Bulletin:

I have read with considerable interest the article appearing in the *N. A. C. A. Bulletin* of January 1, 1946, on the subject, "Installing an Incentive Wage Plan" by Charles M. Reinherr and Paul Griek. I think this is a very fine article and that the plan as outlined is developed on what appears to be a sound and equitable basis.

I was interested in one paragraph in which mention was made that the program was for hourly workers only and that salaried employees were excluded. This I believe is the usual practice followed; however, I do know of some industries that in addition to the incentive program for the hourly workers develop a program for the supervisory or key people who, through their efforts, directly contribute to successful plant operation and progress. In these plans it has been determined that, by recognizing efficiency in performance, the key employees take a greater interest in the over-all operations. This in turn has a direct bearing on the work performed by the hourly employees and thus means more compensation for them.

The efficiency is measured through past performance analysis, direct and indirect production standards, and waste reduction standards. In developing this program the standards determined for the hourly employees would receive consideration in determining the participation of the key or supervisory personnel. In a program of this kind the salaried employee always receives his base salary plus a bonus; certain limitations may, of course, be placed on the amount of bonus that he may receive.

This type of program assists in the maintenance of efficiencies which will make it possible for production requirements to be met. It has further merit in that there is developed a degree of cooperation between departments as well as between various units, which is necessary to advance a strong company program.

Torrey A. Kaatz,
Toledo Chapter.

Standards—Can They Be Swallowed Whole?

Editor, N. A. C. A. Bulletin:

From the very interesting article of W. I. McNeill in the December 1, 1945, *Bulletin* it is clearly demonstrated that standards, per se, do not offer a cure-all for all cost accounting ills.

However, the merit for standards should be the operating control feature, and therefore standards alone are not sufficient but must be accompanied by the best attainable actuals in order to measure the results for operating management. Further, management cannot use total variance of a department or operating unit any better than a golfer can use the total score as opposed to the total par for the course. Therefore, standards and actuals must be developed for each and every cost element.

One can readily agree that it is desirable to have actual costs over a representative period of time prior to establishing standards. However, it is felt that the writer placed too much stress on the use of actuals in developing standards and too little stress on the development of specifications for establishing standards which must be developed if standards are to provide operating control and the knowledge of what management can expect in the way of product costs.

In considering variances it would seem that the reflection of variances by the various expense accounts would not serve the purpose of operating control. Instead, the approach to the analysis of variances should be made by developing the operating causes of the variance and the reasons therefor. For example, merely to know the amount of variance in the labor account is not sufficient; control will not be gained until the variance is translated into causes, such as (1) the under or overuse in the number of men, (2) the use of higher or lower-rate men, (3) overtime premium, and (4) rate of production attained. Another example may be the variance in material used (often referred to as "yield"), and until this is analyzed as to causes, such as (1) excess scrap, (2) rejections, (3) quality of material charged, etc., the amount of variance does not afford management the tools of operating control.

I think the writer could have stressed further the possibility of daily, or periodical development of variances. Such a development will present to management "live" data which enhance the use of specification standards. However, the summarization of these variances (quantitative or monetary) should be the variances for the accounting period. Otherwise additional clerical effort is required, and differences would result which might cause management to lose faith in such controls.

From the above, it is reasonable to deduce:

1. Standard costs can be applied to all types of business, because each and every business must measure the actual results attained against some kind of yardstick.
2. Standard costs can be digested by all businesses when variances are properly analyzed, that is, by their operating causes.
3. The best attainable actual costs are necessary to measure the results properly.

4. If specification standards are to be used for operating control, it is necessary to allocate variances to individual products to obtain the actual net profit by products. This is necessary so that management can make policy decisions with respect to sales of unprofitable products.
5. Profit results on a purely standard basis would be of little value unless such standards were constantly kept in line with actual experience, and if so developed, such standards would lose their usefulness as tools for cost control, which is their primary function.
6. Specification standards must be immediately revised when changes in processes or methods are effected. Out-of-date standards lose their greatest value.

As can be seen the writer is in hearty agreement with the general theme that standards cannot be swallowed whole. Standards do not represent a panacea, but if applied with an adequate seasoning of sweat and imagination, a real contribution can be made toward the goal of effective cost control.

HENRY J. PRATT,
Birmingham Chapter.

COST CURRENTS

Selling Faces Its Biggest Job—The January, 1946, issue of *Dun's Review* presents a timely analysis of the factors which will govern the size of markets in the immediate future. The article "After Reconversion—Selling Faces Its Biggest Job" by Albert Haring, Professor of Marketing at Indiana University and Vice Chairman of the C. E. D. Marketing Committee, should be of interest to those who are concerned with budget preparation. It contains some interesting data on the distribution of income payments, classified geographically, and it presents estimates for twenty industries covering the increase of 1947 sales volume over that of 1939.

The *Review* is published by Dun & Bradstreet, Inc., 290 Broadway, New York 8, N. Y. The price is thirty-five cents per copy.

Administration of Section 722 Relief Claims—The Commissioner of Internal Revenue has recently submitted a detailed report covering the present status of Section 722 relief claims. He reports that as of December 31, 1945, approximately 17,600 corporations had filed such claims for one or more years. The claims aggregate approximately $3,700,000, or 46 per cent of the excess profits taxes paid by the claimants. The claims are classified as to basis, and the distribution is as follows (some claims being based on more than one factory):

Sec. 722(b)(1)—Interruption of normal production	28%
Sec. 722(b)(2)—Temporary economic depression	40%
Sec. 722(b)(3)(A)—Variant profits cycle	26%
Sec. 722(b)(3)(B)—Sporadic profits experience	18%
Sec. 722(b)(4)—Business changed or commenced	77%
Sec. 722(b)(5)—Other factors	52%
Sec. 722(c)(1)—Intangible assets important	8%
Sec. 722(c)(2)—Capital not important	5%
Sec. 722(c)(3)—Low invested capital	11%

The following statistics are presented covering the status of the claims:

Finally disposed of	13,531
Pending in Tax Court	557
Pending in Technical Staff	2,456
Under review in Washington	1,448
Investigation completed but awaiting field conference	6,556
Awaiting field investigation	6,949
Under actual field investigation	7,535
Total claims field	39,032

With reference to the 13,531 cases disposed of, the disposition was as follows:

Allowed in whole or in part	1,543
Rejected in full	3,747
No tax liability	2,028
Withdrawn	6,213

CHAPTER MEETINGS

March, 1946

Chapter / *Meeting Place*	*Date*	*Subject and Speaker*
Akron Portage Hotel	19	*The Value of Cost Procedures in Management Planning* C. R. Fay, Comptroller, Pittsburgh Plate Glass Co.
Albany	19	*Allocation of Service Department Expense* Arthur T. Caruso, Partner, McKinsey & Co.
Atlanta Atlanta Biltmore Hotel	5	*Insurance Savings and Their Relationship to Accounting and Costs* C. R. Gambill, Regional Auditor, Liberty Mutual Insurance Co.
	19	*Postwar Economic Problems Affecting Costs* Lloyd B. Raisty, Assistant Vice President, Research and Statistics, Federal Reserve Bank.

Chapter Meeting Place	*Date*	*Subject and Speaker*
Baltimore Emerson Hotel	19	Panel Discussion: *Contemporary Cost Accounting Practices* Chairman: Frank A. Shallenberger, Brager-Eisenberg, Inc.
Binghamton Hotel Arlington	21	*Organization Planning and Control Technique* E. F. O'Toole, Chief Management Consultant, Office of the Quartermaster General.
Birmingham Hotel Thomas Jefferson	19	*Financial and Cost Analyses for Management* Merrill Pratt, President, Continental Gin Co.
Boston Hotel Vendome	20	*Some Human Problems of Administration* T. North Whitehead, Director of Management Training Program, Radcliffe College.
Bridgeport Stratfield Hotel	21	*Presentation of General Subject of Budgets and How-We-Do-It* Robert N. Wallis, Assistant Treasurer, Dennison Manufacturing Co.
Brooklyn Central Branch, Y. M. C. A.	20	Forum Discussion: *The Functions of Accounting Systems* Chairman: George Kattenhorn, F. M. Schaefer Brewing Co.
Buffalo Covenant Church	28	*Budgeting for Postwar Progress* Jesse G. Kline, Chief Cost Accountant, The Atlantic Refining Co.
Calumet Hotel Gary	19	*The Accountant and Labor Relations* James H. Gilby, J. H. Gilby & Co.
Cedar Rapids Hotel Roosevelt	20	*An Executive's Viewpoint of Cost Control* N. T. Chadderdon, General Manager, Woods Bros. Thresher Co.
Chattahoochee Valley Cherokee Lodge	11	*New Horizons in Accounting* George F. Neill Hutchings, Birmingham.
Chattanooga Hotel Patten	21	*Overhead Expense Control* F. Alan Lindsey, Treasurer, Brock Candy Co.
Chicago Furniture Club of America	14	*Industrial Accounting in a Competitive Economy* Mason Smith, Partner, McKinsey, Kearney & Co.
	28	*Distribution Costs—Cost Accounting for Distribution* J. Brooks Heckert, Associate Professor of Accounting, College of Commerce, Ohio State University.
Cincinnati Hotel Gibson	21	*Normal Capacity and Its Uses* L. W. Downie, President, Kelsey Wheel Co., Ltd.
Cleveland Carter Hotel	21	*Improved Office Methods—Their Development and Promotion* Robert C. Neaidengard, Director of Office Methods, Westinghouse Electric Corp.

Chapter Meeting Place	Date	Subject and Speaker
Columbus Fort Hayes Hotel	18	*The Guaranteed Annual Wage* R. D. Gower, Controller, George A. Hormel Co.
Cuba Havana Yacht Club	27	*Asset Valuation Reserves and Their Treatment from the Viewpoint of Income Taxation* Juan Denis Llanes, Partner, Denis and Nodar.
Dallas Melrose Hotel	15	*Railway and Cost Accounting Problems* P. Kirchhaine, Treasurer, Dallas Railway & Terminal Co.
Dayton Van Cleve Hotel	19	*Control of Inventory Costs* Paul A. May, Assistant Comptroller, Minneapolis-Honeywell Regulator Co.
Decatur Decatur Club	21	*Factors in Developing Industrial Bank Credit, A Banker's Viewpoint* E. E. Joynt, Vice President, Millikin National Bank.
Denver Cosmopolitan Hotel	19	*Financial and Cost Problems—Present and Future* G. M. Pelton, Financial Analyst, Comptroller's Office, Swift & Co.
Des Moines Commodore Hotel	19	*Making Budgets Work* Arthur H. Smith, Vice President and Comptroller, Mechanical Div., General Mills, Inc.
Detroit Detroit-Leland Hotel	21	*Current Trends in Cost Accounting* Eric Camman, Partner, Peat, Marwick, Mitchell & Co.
Erie Moose Club	18	*Streamlining Procedure for Office Efficiency* H. F. Van Gorder, Procedure Supervisor, U. S. Steel Corp. of Delaware.
Evansville McCurdy Hotel	21	*Training for Accounting* Stanley Pressler, Kerkling & Co.
Fort Wayne Chamber of Commerce	5	Forum Discussion: *Role of Item Identification as the Basic Language for Commerce and Industry* Charles R. Simmons, Partner, Griffenhagen & Associates.
	19	*What Education Should an Accountant Have?* A. A. Prickett, Dean, School of Business, Indiana University.
Fort Worth Blackstone Hotel	21	*Production Cost of a Barrel of Oil* Lyle R. Sproles, Sproles, Woodard & Co.
Grand Rapids Rowe Hotel	19	*Distribution Costs—Analysis and Control* J. B. Heckert, Associate Professor of Accounting, Ohio State University.
Greenwich Hugo's Piccadilly Restaurant, Stamford	19	*Role of the C. P. A. in Industrial Accounting* D. F. Houlihan, Price, Waterhouse & Co.

Chapter Meeting Place	*Date*	*Subject and Speaker*
Hagerstown Hotel Alexander	21	*The Foreman Looks at the Cost Accountant* H. D. Stamm, Foreman, Yard & Transportation Dept., Congoleum Nairn, Inc.
Hampton Roads Norfolk Yacht and Country Club	5	*Cost Research* Arthur B. Gunnarson, Assistant Secretary, National Association of Cost Accountants.
Harrisburg Penn-Harris Hotel	12	*Early Closing* A. L. Hutchinson, Jones & Laughlin Steel Corp.
Hartford Farmington County Club, Farmington	19	*Cost Reduction Through Time and Motion Study* Allan H. Mogensen, Industrial Consultant.
Houston Y. M. C. A.	20	*Sensible Wage Incentive Plans* Gilbert M. Fitzgerald, Card-Moreau & Associates.
Indianapolis Lincoln Hotel	20	*Future Opportunities for the Cost Accountant* S. A. Marsh, Associate Professor of Accounting, Washington University.
Jackson Heidelberg Hotel	21	*Postwar Pricing Policies and Accounting* Mason Smith, Partner, McKinsey, Kearney & Co.
Jamestown Hotel Jamestown	26	*Wage Analysis* D. W. Weed, Supervisor of Wage Rates, General Electric Co.
Kansas City Hotel President	18	*Prospective Prices and Prosperity* C. A. Phillips, Dean, State University of Iowa.
Lancaster Hotel Brunswick	22	*Internal Control—Sensible Safeguarding* H. S. Tallman, Assistant Comptroller, E. W. Bliss Co.
Lehigh Valley Hotel Traylor, Allentown	22	*Summary of the State of Pennsylvania Unemployment Insurance Laws* Leroy Burgnon, Chief Accountant, Field Accounting Div., Pennsylvania Dept. of Labor.
Los Angeles Scully's Cafe	19	*Financial Statements and Public Relations* Irving J. Hancock, Assistant Controller, Union Oil Co. of California.
Louisville Brown Hotel	19	*Cost Accounting Fundamentals* H. T. McAnly, Resident Partner, Ernst & Ernst.
Maine (State of) Lafayette Hotel, Portland	15	*Recent Developments in Standard Cost Accounting* S. Z. Bronner, Chief Works Accountant, Bridgeport Brass Co.
Memphis Hotel Gayoso	20	*Industrial Accounting in the Postwar Era* Mason Smith, Partner, McKinsey, Kearney & Co.

Chapter Meeting Place	Date	Subject and Speaker
Milwaukee Milwaukee Athletic Club	18	*Reports to Management for Cost Control Accounting* Mark D. Littler, Accounting Manager, Arthur Andersen & Co.
Minneapolis Curtis Hotel	28	Panel Discussion: *Payroll Accounting* Chairman: L. C. Swanson, Chief Cost Accountant, Minneapolis-Honeywell Regulator Co.
Muskegon Occidental Hotel	18	*Inventory and Production Control* M. E. Mengel, Director of the Industrial Div., Burroughs Adding Machine Co.
Nashville Andrew Jackson Hotel	12	*Budgetary Control* Paul M. Millians, Vice President, Commercial Credit Corp.
New Hampshire Carpenter Hotel, Manchester	19	*Distribution of Burden* Herbert Stevenson, Treasurer, Kistler Leather Co.
New Haven Hotel Garde	26	Debate: *Do Incentives Pay?* George H. Elliott, Executive Vice President, Norris & Elliott, Inc., versus Boris Shishkin, Economist, American Federation of Labor.
New Orleans Jung Hotel	20	*Department Store Cost Accounting* B. C. Moise, Vice President and Treasurer, Maison Blanche Co.
New York Hotel New Yorker	25	*Preparing Manufacturing to Meet Competitive Conditions* Walter F. Titus, Vice President, Sperry Gyroscope Co., Inc.
Newark Hotel Robert Treat	28	Panel Discussion: *The Control of Capital Expenditures* G. J. Schultz, Merck & Co., Inc.; and W. M. Leary, Assistant Business Manager, Government Contract Div., Columbia University; and C. B. Apple, Resident Partner, Haskins & Sells.
Peoria Jefferson Hotel	20	*Cost Reduction Through a Sound Suggestion System* H. W. Seinwerth, Manager, Suggestion Plan, Swift & Co.
Philadelphia Kugler's Chestnut St. Restaurant	14	*Budgeting for Control* Edward E. Lewis, Industrial Consultant.
Pittsburgh Fort Pitt Hotel	20	*Lower Costs Through Work Simplification* Allan H. Mogensen, Industrial Consultant.
	6	*Controlling Processing Costs* William J. Hogan, Controller, H. J. Heinz Co.
Portland Heathman Hotel	19	*Internal Auditing* Eric P. Van, Peat, Marwick, Mitchell & Co.

Chapter *Meeting Place*	*Date*	*Subject and Speaker*
Providence Narragansett Hotel	18	*War Production Experience Applied to Post-war Cost Accounting and Control* T. R. Evans, Chief Accountant, General Electric Co.
Reading Wyomissing Club	15	*Developing Costs for New Products* Dr. Charles H. Reitell, Stevenson, Jordan & Harrison, Inc.
Richmond Hotel John Marshall	21	*The Public Interest in Cost Accounting* Dr. T. H. Sanders, Professor of Accounting, Graduate School of Business Administration, Harvard University.
Rochester Hotel Seneca	29	*Management's View of Cost Accounting* James F. Lincoln, President, The Lincoln Electric Co.
Rockford Hotel Faust	21	*Production Control* W. E. Crotsley, Director of Department of Manufacturing Control Education, International Business Machines Corp.
Saginaw Valley Zehnders' Hotel	21	*Case Study, The Electric Auto-Lite Co.* Speaker to be announced.
St. Louis Coronado Hotel	12	*Effect of Reconversion on Retail Distribution* R. W. Van Horn, Controller, J. Goldsmith & Sons Co.
San Francisco Engineer's Club	26	*Sugar Refinery Accounting* Kenneth E. Kincade, Chief Accountant, J. D. & A. B. Spreckels Co.
Scranton Hotel Casey	18	*Business Research for Postwar Survival* R. V. Blinkert, Vice President, Prentice-Hall, Inc.
South Bend LaSalle Hotel	19	*The Banker and the Cost Accountant* Francis Walters, Cashier, First National Bank.
Springfield Hotel Sheraton	20	*Production Control* E. William Lanem, Treasurer, American Screw Co.
Syracuse Hotel Syracuse	21	*The Team—Engineer and Cost Accountant for Lower Costs* George H. Elliott, Vice President, Norris & Elliott, Inc.
Toledo Secor Hotel	19	*Property Investment Control* A. B. Hossack, Executive Vice President, The American Appraisal Co., Inc.
Tri-Cities Blackhawk Hotel	19	*The Relation of Cost Accounting to General Accounting* Sidney G. Winters, Professor of Accounting, State University of Iowa.
Tulsa Mayo Hotel	20	Panel Discussion: *Accounting Problems* Past Presidents.

Chapter Meeting Place	Date	Subject and Speaker
Utica Hotel Hamilton	11	*The Use of Accounts and Accounting Records in Labor Disputes* John A. McIntosh, Associate, Industrial Association of Utica.
Wabash Valley Terre Haute House, Terre Haute	12	*The Use of Accounting Records of Wholesale or Retail Outlets as a Sales Tool for Producers or Manufacturers* E. L. Tomlinson, District Manager, Mid-Continent Petroleum Corp.
	26	Information Please: *Costs, Auditing, General Accounting, and Taxation* Panel Moderator: Harold Sinex, Auditor, Perfect Circle Co.
Washington Hotel 2400	20	*The Public Interest in Cost Accounting* Dr. Thomas H. Sanders, Professor of Accounting, Graduate School of Business Administration, Harvard University.
Wichita Broadview Hotel	19	*Market Research and Analysis* Stanley F. Teele, Professor of Marketing, Graduate School of Business Administration, Harvard University.
Williamsport Lycoming Hotel	11	*Engineering Economy with Special Emphasis on Break-Even Charts* Clarence E. Bullinger, Professor and Head of Industrial Engineering Dept., Pennsylvania State College.
Worcester Sheraton Hotel	21	*Labor Relations* Robert Watt, National War Labor Board.
York Hotel Yorktowne	20	*The Importance of Distribution Is a Postwar Economy* E. A. Hirschman, Secretary, York Chamber of Commerce.
Youngstown Tippecanoe Country Club	20	*The Internal Audit of a Standard Cost Plan* E. A. Green, Chief Auditor, Armstrong Cork Co.

CHAPTER RATINGS

For Eight Months Ending January 31, 1946

	Applications, Reinstatements, and Transfers	Member Attendance	Publications	Publicity	News Letters	Program	Employment	Board Meetings	Meeting Notices and Reports	Bulk Mailing	Financial Budget and Reports	Special Activities	Total
1. Providence	1113	822	285	165	140	200	35	480	88	50	75	185	3638
2. Birmingham	1096	842	388	138	160	200	35	420	100	50	75	120	3624
3. New Hampshire	961	752	113	132	160	200	29	450	100	50	75	225	3247
4. Hampton Roads	1067	590	308	136	160	200	31	390	95	40	75	120	3212
5. Dallas	1125	568	240	125	160	200	35	388	100	50	75	120	3186
6. Atlanta	1125	489	162	143	160	200	35	446	100	40	75	145	3120
7. Philadelphia	988	620	180	156	160	200	35	420	90	50	75	80	3054
8. Los Angeles	982	556	345	133	160	175	35	330	92	50	75	95	3028
9. New Orleans	986	657	246	142	160	175	35	363	90	40	75	40	3009
10. Jamestown	1039	546	98	151	160	200	35	360	100	50	75	185	2999
11. Minneapolis	922	759	156	109	160	200	35	330	100	50	75	90	2986
12. Des Moines	1046	742	105	41	120	200	34	390	92	40	75	90	2975
13. Memphis	1060	596	115	63	160	200	35	404	90	50	75	115	2963
14. Utica	967	660	115	144	160	200	28	404	92	50	75	40	2935
15. Columbus	956	455	172	117	160	200	33	412	100	50	75	183	2913
16. Scranton	1025	513	118	117	160	200	35	390	100	50	75	120	2903
17. Newark	667	680	235	160	160	200	35	390	100	40	75	140	2882
18. Erie	805	478	174	141	160	200	35	420	100	40	75	245	2873
19. Baltimore	768	466	270	122	160	200	35	450	88	50	75	155	2839
20. Indianapolis	751	490	260	96	160	200	35	420	92	50	75	200	2829
21. Toledo	700	496	198	145	160	200	35	480	100	50	75	180	2819
22. Fort Wayne	968	463	150	115	140	200	35	448	100	50	75	65	2809
23. Worcester	509	518	342	159	140	200	35	360	100	50	75	315	2803
24. Akron	820	437	350	70	140	200	34	448	100	50	75	65	2789
25. St. Louis	457	672	310	160	160	200	35	419	100	50	75	145	2783
26. Milwaukee	717	500	295	112	160	175	35	418	100	50	75	145	2782
27. Williamsport	1037	460	42	141	160	200	34	328	95	50	75	145	2767
28. Richmond	975	747	218	36	80	175	10	274	80	40	75	40	2750
29. New Haven	742	561	312	126	140	200	35	360	100	40	75	50	2741
30. Chicago	652	597	235	146	160	200	35	419	100	50	75	70	2739
31. Wabash Valley	958	417	195	106	160	200	14	390	92	50	75	70	2727
32. Syracuse	965	506	72	99	100	200	35	473	100	50	75	40	2715
33. Cleveland	483	708	145	128	160	175	35	449	100	50	75	205	2713
34. Houston	894	458	125	144	140	200	35	420	100	50	75	70	2711
35. Boston	531	587	145	150	160	200	35	450	100	50	75	200	2683
36. Springfield	474	531	268	161	160	200	35	416	100	50	75	205	2675
37. Brooklyn	743	531	195	152	160	200	34	387	100	50	75	45	2672
38. Hartford	659	510	220	165	160	200	35	360	100	50	75	120	2654
39. South Bend	888	584	98	102	160	200	34	360	92	30	75	20	2643
40. Rochester	498	580	205	156	160	200	35	360	100	50	75	195	2614
41. Nashville	420	707	390	69	100	200	34	476	72	30	75	40	2613
42. Dayton	432	504	330	165	140	200	35	450	100	50	75	130	2611
42. Muskegon	1039	688	...	61	40	200	25	365	40	40	75	45	2611
44. Tri-Cities	500	469	252	141	160	200	34	420	100	50	75	200	2601
45. New York	599	559	230	127	160	200	35	420	100	50	75	45	2600

	Applications, Reinstatements, and Transfers	Member Attendance	Publications	Publicity	News Letters	Program	Employment	Board Meetings	Meeting Notices and Reports	Bulk Mailing	Financial Budget and Reports	Special Activities	Total
46. Denver	517	548	272	126	160	200	35	420	100	50	75	65	2568
47. Maine	700	531	105	140	160	200	19	377	100	40	75	120	2567
48. Pittsburgh	477	498	345	135	120	200	35	471	100	50	75	50	2556
49. Bridgeport	449	480	235	161	160	200	35	429	100	50	75	180	2554
50. Peoria	525	476	146	161	160	200	35	390	100	50	75	230	2547
51. Jackson	1030	383	..	76	120	200	32	419	94	40	75	45	2514
52. Chattahoochee Valley	1042	854	..	84	60	200	19	145	40	50	..	..	2494
53. Decatur	922	410	78	87	160	200	33	312	100	50	75	65	2492
54. Grand Rapids	663	570	84	66	160	200	35	383	100	40	75	115	2491
55. San Francisco	521	543	140	127	160	200	35	386	100	50	75	100	2437
56. Saginaw Valley	777	510	98	121	120	200	34	299	100	40	75	20	2394
57. Washington	825	470	..	102	160	200	24	356	88	50	75	20	2370
58. Lancaster	418	458	150	142	160	200	35	420	100	50	75	130	2338
59. Lehigh Valley	500	508	10	160	160	200	33	388	95	40	75	125	2294
60. Albany	607	493	..	137	160	200	21	393	100	50	50	75	2286
61. Detroit	382	508	270	97	160	175	35	390	100	50	75	20	2262
62. Kansas City	470	466	65	133	160	200	19	448	100	40	75	60	2236
63. Calumet	650	512	..	57	160	200	39	358	88	40	75	50	2219
64. Hagerstown	350	492	98	121	160	200	35	352	100	40	75	195	2218
65. Rockford	362	601	84	55	120	200	35	372	100	40	75	170	2214
66. Cincinnati	508	461	162	74	100	200	35	373	100	50	75	70	2208
67. Chattanooga	453	523	156	83	160	200	35	358	100	50	75	..	2193
68. Wichita	245	456	330	97	100	200	35	444	95	50	75	40	2167
69. Youngstown	484	308	216	126	160	175	35	328	87	50	75	90	2134
70. Reading	247	451	234	115	160	175	34	420	100	30	75	90	2131
71. Greenwich	450	492	..	130	140	200	35	415	80	10	75	80	2107
72. Buffalo	169	403	185	150	160	200	34	390	100	50	75	155	2071
73. Harrisburg	350	510	..	108	140	200	35	379	100	40	75	110	2047
74. Tulsa	659	412	..	43	55	200	28	445	88	40	75	..	2045
75. York	88	380	138	161	160	200	35	445	87	50	75	190	2009
76. Cuba	221	351	168	147	160	200	32	450	100	40	75	20	1964
77. Cedar Rapids	525	446	..	102	100	200	29	380	88	30	25	20	1945
78. Binghamton	323	519	..	69	155	200	23	310	92	30	75	90	1886
79. Portland	323	440	..	51	60	200	25	435	88	30	70	50	1772
80. Louisville	538	455	72	64	..	200	27	180	84	40	70	..	1730
81. Evansville	389	424	..	48	140	175	12	311	84	30	25	..	1638
82. Fort Worth	525	294	..	54	..	..	5	118	59	..	..	..	1055
83. Hawaii	270	..	..	45	100	..	..	105	60	..	25	..	605

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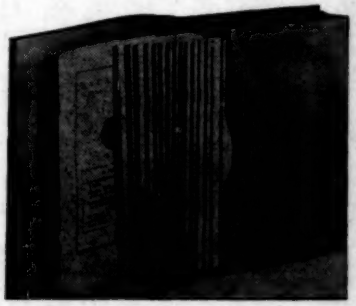

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